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ARGENTINA

RESEARCHERS CONCENTRATE EFFORTS ON ANTHEMORRHAGIC FEVER VACCINE

Buenos Aires LA NACION in Spanish 13 Sep 78 p 7

/Text/ Although there are no concrete statistical data on the epidemiologic increase, morbidity and fatalities concerning the Argentine hemorrhagic fever, the determination of the provincial authorities to concentrate all possible efforts on its eradication is widely known.

The outstanding corn-growing areas of Junin, Chacabuco, Pergamino, Rojas, and Salto, which marked the starting point of our notorious and tragic Argentine hemorrhagic fever, paid dearly for that viral disease which was identified almost from its onset. Its natural reservoir, a small rat, gradually traced its ecological spread, which reached vast sections of adjacent provinces such as happened in Cordoba and Santa Fe.

Laboulaye, Junin and Pergamino were the sites of periodic scientific meetings sponsored by the provincial government of Buenos Aires, but they were also the scene of big scientific arguments in which each clinician or researcher would back up only his own ideas about the eradication campaign.

During his first visit to our country, Dr Sabin, Nobel-prize winner for the discovery of the antipoliomyelitis vaccine, was consulted about the preventive measures that should be adopted to eliminate that virosis. There are several ways, he told us then: improve the working conditions of the rural worker through means of mechanization and the use of clothing and gloves; decrease the number of rats by every known means; and prepare a vaccine which is adequately effective, sufficiently innocuous for the individual, and whose strength will guarantee real immunity for the people. But to do this, the eminent scientist added, it is necessary to have a total combination of efforts. On the one hand, to gather together the laboratory work which at that time was being performed in Cordoba, the National Microbiology Institute and the microbiology department of the Buenos Aires School of Medicine. On the other, to have an agreement among highway officials, Argentine Railroad officials and landowners intended to eliminate the underbrush where the rodents build their nests, attracted by the feed in the stubbles and the weeds.

The events connected with this disease, however, have aroused public concern concurrently with the cycles of the major outbreaks of the illness.

The front line of the overall struggle in the last 2 years has been manned by the Scientific Research Commission (CIC) of Buenos Aires Province. It has not only generously financed the diagnostic and treatment centers, whose main establishment is installed in Pergamino, but also has promoted with its support--which can be termed unusual--the centralization of the efforts of our virologists in order that they will all cooperate in the expected ideal solution: the vaccine. In a certain way, the predictions of Dr Sabin will be fulfilled through the CIC, and the highly specialized laboratories in which the stages of the preparation of the vaccine will take place--which currently are carried out in various separate centers--will then operate in Pergamino. For the time being, the undersecretary of public health of Buenos Aires Province has announced that there is a subsidy of \$1 million from that government to combat Argentine hemorrhagic fever. Guidelines for the tasks and for the use of the funds will be established in a forthcoming meeting.

8414

CSO: 5400

DISEASES TO BE FOUGHT BY PEOPLE'S PLAN

Rangoon THE WORKING PEOPLE'S DAILY in English 13 Sep 78 p 1

[Text]

RANGOON, 12 Sep—The vector borne disease control programme is to be implemented in Burma through general sanitation, bio-environmental intervention, giving health education to the people and allowing them to participate, surveillance and treatment of persons afflicted by diseases.

The vector borne disease control programme is designed to reduce death and sickness due to five major diseases: malaria, dengue haemorrhagic fever (DHF), filariasis, Japanese encephalitis and plague.

The programme will be implemented so that there will be a 25 per cent reduction in the incidence of vector borne diseases by 1982, the last year of the People's Health Plan.

The Canadian International Development Agency (CIDA) will contribute \$ 5.65 million in united grant funds for

implementation of the programme.

Burma will spend an amount equivalent to \$ 5.9 million.

Other agencies contributing to the vector borne disease control programme are the World Health Organization (WHO) with \$ 1.4 million, the United Nations Children's Fund (UNICEF) with \$ 1.9 million.

A memorandum of understanding between Burma and Canada for implementation of the vector borne disease control programme was signed in Rangoon on 16 August 1978 (WPD 18 Aug).—NAB

CSO: 5400

GUATEMALA

BRIEFS

DENGUE EPIDEMIC--The Minister of Public Health and Social Assistance has announced that the dengue epidemic on the southern coast has been brought under control. Of 28,000 cases treated so far, there have been no fatalities, and only from 100 to 200 cases are still under treatment. [Guatemala City EL IMPARCIAL in Spanish 22 Sep 78 pp 1, 4 PA]

CSO: 5400

INDIA

BRIEFS

INCIDENCE OF MALARIA INCREASE--The incidence of malaria in the City has increased during the last two months. The total number of cases found positive and treated from January to August this year in the General Hospital and Corporation dispensaries is 20,000, while the cases attended to during July and August alone is about 7,000. The corporation authorities attribute the increase in the incidence to intermittent rain causing stagnation of water in low-lying areas and providing fertile ground for breeding mosquitoes. They have appealed to the people to co-operate with the civic body in its efforts to control the disease by keeping a watch on domestic breeding grounds. [Text] [Madras THE HINDU in English 23 Sep 78 p 12]

CSO: 5400

INDONESIA

BRIEFS

CENTRAL JAVA CHOLERA--Jakarta, September 26 (AFP)--The Indonesian Government has set up an emergency medical team to check a cholera outbreak in the district of Cilacap, southern central Java. Of the 112 cases reported, 12 had died. An investigation showed that the outbreak was brought about by visitors who came to the area to celebrate the end of the Moslem fasting month. [Text] [Hong Kong AFP in English 1310 GMT 26 Sep 78 BK]

CSO: 5400

LAOS

BRIEFS

MALARIA IN LOUANG NAM THA--Vientiane, October 1 (KPL)--The Public Health Ministry has sent more than 2 tons of medicines to various medical establishments in Louang Nam Tha Province (northern Laos). Over the recent past, the provincial medical service sent its mobile teams to give examination and treatment to 492 malaria-stricken people and popularised hygiene and disease prevention methods to the ethnic people in Viang Phou District. It also trained many nurses and sanitary workers for hamlets. The provincial and district hospitals and village dispensaries are actively improving their disease treatment in service of the people. [Text] [Hanoi KPL in English 0224 GMT 2 Oct 78 BK]

PHONG SALY SMALLPOX VACCINATIONS--Between late July and early August mobile medical teams in Meuang [district] Samphan, Phong Saly vaccinated people in various areas around the district against smallpox. Within a short time they were able to vaccinate a total of 10,540 people. Along with this they lectured to the people about the three cleans health principles, stressing disease prevention. [Vientiane KHAOSAN PATHET LAO in Lao 23 Aug 78 p A 6]

CSO: 5400

UNIFIL TROOPS CONTRACT VIRAL HEPATITIS

Rangoon THE WORKING PEOPLE'S DAILY in English 14 Sep 78 p 3

[Text]

BEIRUT, 12 Sep—More than 10 per cent of the French paratroop regiment forming part of the United Nations Interim Force in Lebanon (UNIFIL) has had to be sent home suffering from viral hepatitis, it was reported here.

Soldiers said the disease, which has so far affected 67 men, had been caught by drinking infected water when the regiment first arrived near the port of Tyre, 80 kilometres (50 miles) south of Beirut.

Officers said that the paras were in general very tired, because of nervous tension in the first two months of their mission, the intense heat and lack of sleep due to constant day and night patrols.

An afternoon siesta is now obligatory for the troops, and their usual sports training has been abandoned.

The regiment is due to return to France within three weeks, when the first six-month mandate of the UNIFIL force expires.—NAB/AFP

CSO: 5400

MORE FUNDS TO FIGHT CHOLERA IN KELANTAN

Kuala Lumpur NEW STRAITS TIMES in English 10 Sep 78 p 17

[Text] **KOTA BARU, Sat.** — An additional \$234,000 has been allocated to the Health Ministry to bring cholera under control in Kelantan.

The Parliamentary Secretary to the Ministry, Mr. Jawan Empaling, told a Press conference at the General Hospital here today that the money would be used to dig wells and build latrines for the poor.

He added that within five months there were 15 deaths due to the disease, while 333 cases were confirmed and 282 people detected to be active carriers in the State.

Mr. Empaling said the most affected areas were Kota Baru, Ulu Kelantan, Pasir Mas, Tumpat and Bachok.

The causes

The most common factors encountered in

these areas were poor water supply and unsatisfactory sewage disposal, he added.

The movement of people within the State had further spread the disease.

Mr. Empaling said it was most important to improve the water supply and sewage in the high-risk areas.

Several State and district epidemic control committee meetings had already been held. The health authorities had so far chlorinated 16,085 wells, constructed 787 latrines and immunised 43,209 people, he said.

Mr. Empaling appealed to the people to pay attention to personal cleanliness, drink only boiled water and seek early treatment in the event of diarrhoea and vomiting.

ANOTHER CHOLERA DEATH REPORTED IN KUANTAN

Kuala Lumpur NEW STRAITS TIMES in English 17 Sep 78 p 10

[Text]

KUANTAN, Sat. — Cholera claimed another life yesterday bringing the total to three since it was first reported in Pahang in May.

Two-year-old Roslisah binti Dollah, of Kampung Kempadang, Tanjung Lumpur, died at the General Hospital here shortly after being admitted yesterday evening.

Health authorities here are going all out in their follow-up operation in the affected areas by chlorinating the wells and advising residents to keep their surroundings clean.

District health authorities have temporarily banned the sale of ice water and "kueh" in all shops.

The Town Council has sent out its enforcement unit to advise coffee shop keepers to avoid the sale of pre-cooked food such as nasi lemak, nasi padang and pulut.

Six districts — Jerantut, Pekan, Kuala

Lipis, Raub, Temerloh and Kuantan — have been declared cholera-affected areas since last month.

In Kota Bahru, nine out of 340 people confirmed to have cholera in Kelantan are still being treated in the General Hospital here.

An Information Department statement said today that the

death toll from the disease remained at 16.

Five of 282 cholera carriers were still in hospital while the number of suspected cases under treatment was 13.

The statement said that since the disease was first reported in April this year a total of 787 lavatories had been built and 160 wells dug as measures to contain the disease.

— Bernama

MALAYSIA

CHOLERA DEATH TOLL INCREASED TO 17

Kuala Lumpur NEW STRAITS TIMES in English 19 Sep 78 p 5

[Text]

KOTA BARU, Mon. —
The cholera death toll in
Kelantan has increased
to 17, with the death of a
59-year-old woman yes-
terday.

The latest victim was
from Kampung Gucil,
Kuala Krai.

The number of pa-
tients also increased to
341, according to an In-
formation Department
statement.

A boy from Kampung
Kuala Besar near here
was confirmed as a
cholera carrier, bringing
the number of cases to
286.

Three more people
suspected of having the
disease were also ad-
mitted to hospital. —
Bernama.

CSO: 5400

MOZAMBIQUE

BRIEFS

VACCINATION CAMPAIGN STATISTICS--Within the framework of the National Vaccination Campaign, a total of 874,281 men, women and children have been vaccinated so far in the province of Gaza. According to statistical data released a few days ago by the official in charge of the vaccination teams operating in this province, 104,237 persons were vaccinated in the centers located in the communal village "Marien N' Gouabi" and in the Inhamissa Teachers' College, and 52,948 more were vaccinated in Xai-Xai, capital of Gaza province on 12 and 13 September. [Text] [Maputo NOTICIAS in Portuguese 28 Sep 78 p 3]

CSO: 5400

NICARAGUA

BRIEFS

ANTIDENGUE CAMPAIGN--The Public Health Ministry has announced that a sanitation campaign to control dengue fever is currently underway in the capital's urban sectors and outskirts as well as in other parts of the country. Because this disease has been only partly controlled in Honduras, where many people have been affected, it continues to be a latent threat for Nicaragua. The ministry has allocated 500,000 cordobas for the purchase of equipment to be used in this campaign. [Managua NOVEDADES in Spanish 26 Sep 78 p 2 PA]

CSO: 5400

PEOPLE'S REPUBLIC OF CHINA

FOREIGN STUDENTS PROTECTED AGAINST KILLER DISEASE

Ikeja THE PUNCH in English 27 Sep 78 p 9

[Text]

CHINESE authorities in Peking, on Monday gave foreign students a powder vaccine against a mosquito-borne viral infection, also called Japanese Encephalitis, which recently killed an Italian embassy attache.

It was the first move of its kind, as foreign students had not previously been included in the annual vaccination against the disease for Chinese students at the Foreign Language Institute.

One foreign student said the vaccine, a soluble brown powder, was handed out without explanation. The Italian attache, Antonio Penisero, died on September 17 after 18 days in hospital.

According to medical sources, China's developing tourist indu-

stry may now also make vaccination against the infection compulsory for visitors, though it was thought unlikely the disease would spread to other continents.

The infection, common in pigs throughout Asia and contracted more easily in humid regions, is not contagious in humans.

But Chinese sources reported hundreds of cases each year in the capital alone, between May and October.

Most children received a Chinese-developed vaccine at school and sometimes at university, he sources said.

CSO: 5400

MEASLES AND WAR 'PUT STRAIN ON HOSPITALS'

Salisbury THE HERALD in English 4 Oct 78 p 2

[Text] The war, which forced many rural hospitals to close while adding to the casualty intake at remaining hospitals, combined with a rampant measles epidemic last year to place great strain on Government health facilities.

The report of the Secretary for Health for 1977 says that 1,237 Africans and two Coloureds died in the measles epidemic which swept through Matabeleland and Manicaland, and also cropped up in Salisbury.

The Provincial Medical Officer of Health for Matabeleland reports that 4,319 cases were notified to him, but "I'm quite sure that the actual number was well over 10,000."

In his area, 77 deaths were notified, but the MOH adds that "hundreds of children died in the rural areas without our ever hearing about them."

In Manicaland 3,091 cases were notified and 17 deaths reported. The Provincial Medical Officer of Health there says that "the high incidence of this disease is disturbing, especially since we have been making enormous efforts to increase the viability of immunisation."

Reduced

In Salisbury very many children developed respiratory problems, the MOH for Mashonaland reports, and considerably strained the resources of Harare hospital and the Infectious Diseases hospital.

Many rural hospitals were closed, and several mission hospitals were either closed or working at greatly reduced capacity due to the war.

This threw an extra load on the facilities which remained open, the Secretary for Health says.

In Matabeleland alone two Government hospitals, 11 mission hospitals or clinics, and 13 local authority clinics were closed last year, while others were running at reduced staff.

Many missions providing medical services had also closed down, and 708 hospital beds were lost in this way, as well as medical and nursing staff.

In Manicaland, four of the African medical personnel went missing, and many more had narrow escapes in ambushes and landmine incidents.

"It is surprising how little this has deterred them from carrying out their duties," the MOH for Manicaland comments.

At Sinoia new out-patients increased by 24 percent since 1976, mainly because of security activity.

The Inyati group of hospitals report great hardships due to the security situation and the closure of the surrounding mission hospitals. The staff situation also worsened as "no one was interested in working in these sensitive areas."

CSO: 5400

SINGAPORE

BRIEFS

CHOLERA CARRIERS--Singapore, Sept 27 (AFP)--Two more carriers of cholera have been detected since the epidemiological investigations to trace the source of a recent outbreak of the disease began here two weeks ago. According to an Environment Ministry statement issued today, so far seven cases and three carriers have been isolated. One of the carriers was a 17-year-old female food handler. The Environment Ministry's Epidemiological Department had embarked on a big "cholera manhunt" following an outbreak of the disease reported after a mass Chinese moon cake festival dinner on September 14. Some 1,000 people were believed to have attended the dinner. [Text] [Hong Kong AFP in English 1522 GMT 27 Sep 78 BK]

CSO: 5400

SOUTH AFRICA

MEASLES EPIDEMIC IN JOHANNESBURG CONTINUES

Johannesburg POST in English 2 Sep 78 p 6

[Text]

Two to three infants are being hospitalised daily following an outbreak of measles in Soweto and other areas of the Witwatersrand. The Johannesburg City Health Department is urging parents to bring in infants for immunisation against the disease.

According to Dr Baldwyn Richard, medical officer of health in Johannesburg, the four months old epidemic can be brought under control if parents bring in their babies.

"We have mobile clinics in the township daily and parents can go to them or the municipal clinics to have their children immunised," he said.

CSO: 5400

SYRIA

BRIEFS

ANTIMALARIA CAMPAIGN--Damascus, 18 Sep--The health ministries of Syria, Lebanon, Jordan, Iraq, Saudi Arabia and Turkey have agreed to hold a joint meeting of officials concerned with the struggle against malaria in Riyadh on November 25, the Syrian news agency SANA has reported. The agency added that the meeting will consider the effectiveness of the anti-malaria campaign along the participating nations' shared borders and will update a plan aimed at preventing the transfer and even at exterminating the disease. [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 19 Sep 78 p 4]

CSO: 5400

VIETNAM

HANOI REPORTS MEASURES TAKEN TO COMBAT HEMORRHAGIC FEVER

Hanoi HANOI MOI in Vietnamese 8 Aug 78 p 2

[Article: "Measures to be Taken in Preventing and Dealing with Hemorrhagic Fever"]

[Text] From the beginning of July to to the present, there have been cases of hemorrhagic fever within the city.

Hemorrhagic fever reaches epidemic proportions thanks to stings by a mosquito called *Aedes Egypti*, transmitting germs from sick to healthy persons. However, because of complex communication and traffic within the city, the actual disease carrier is healthy people themselves (in fact it is healthy people who are already infested by the virus of hemorrhagic fever but who have not yet come down with the sickness) who spread the disease far and wide.

At present, the health sector is concentrating the cadres to execute technical measures aimed at preventing the disease from spreading. These following measures should be taken urgently:

1. Detect as early as possible the pockets of contagion of hemorrhagic fever. In places where scattered cases of hemorrhagic fever show similar symptoms such as sudden high fever, reaching 39-40 degrees C, headache, fatigue, muscular pains, hemorrhagic signs (hemorrhagic points or areas under the skin, nose bleeds, vomiting blood). These symptoms usually appear on the third day of the disease. Basic health cadres must conduct epidemiological investigations to instantly identify pockets of contagion, quickly develop measures to eliminate the disease. In general, in a hemorrhagic fever epidemic, the percentage of patients showing the symptoms of the disease reaches only about 40 percent. Thus, the number of patients reporting to the doctors' offices or checking into hospitals for treatment in no way reflects accurately the real situation at the pockets of contagion. Of late, three hemorrhagic fever patients from La Thanh (Dong Da) precinct checked into Dong Da hospital for treatment; yet, an on-the-spot subsequent investigation by the city and ward anti-epidemic station found out six additional light cases of hemorrhagic fever staying home for treatment.

2. Conduct spraying to exterminate dangerous mosquitoes. Spraying should be done speedily and radically, involving 100 percent of the households in a pocket of contagion, with no exception whatsoever.

According to the findings of the city anti-epidemic station, even the regions considered the best in terms of eradication only reached 60-70 percent of households sprayed, thus being unable to exterminate all mosquitoes and stop the spread of the disease.

3. The people should sleep inside a mosquito net, kill mosquito larvae in water containers by other methods like fish raising, cleaning up vessels and jars, cleaning up all trash, especially cans, broken pieces of bottles and vials, generally considered as pockets of hemorrhagic fever larvae.

To be efficient, these steps should be taken on a large scale.

The hemorrhagic fever season generally lasts 4-5 months, while anti-mosquito chemicals are effective for half a month only. So, in order to prevent and stop the disease, all these above-mentioned measures should be taken simultaneously, radically and on a large scale.

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ARGENTINA

ANTIRABIES CAMPAIGN INTENSIFIED

Buenos Aires CLARIN in Spanish 13 Sep 78 p 21

/Text/ Some 300 municipal teams from all the parties of Greater Buenos Aires, backed up by another 70 teams set up by the Buenos Aires authorities, are out in the streets in a new campaign against rabies.

In various locations of the urban and suburban areas, these teams move from house to house searching for animals and providing free vaccine which guarantees the elimination of one of the ancient illnesses which lead to certain death unless prevented or combated.

Dr Juan Carlos Arrosi, chief of the Rabies Profilaxis Center of Buenos Aires Province, indicated that each team--of the 70 which the province set up--is composed of a veterinarian, a veterinary student, a clerk and assistants.

The way the operation is organized permits a block-by-block coverage of the extensive area of Greater Buenos Aires, where it is estimated there are about 8 million inhabitants.

"In 3 months," Dr Arrosi says, "it is expected that 1.5 million dogs will be vaccinated in Greater Buenos Aires, Greater La Plata, Mar del Plata and other parties, that is to say, the teams will be acting in the most difficult areas."

The professional stressed that "the doses are sufficient to attain the proposed objective. By way of informing the vast public which is to benefit from the operation, he added that "we are interested in vaccinating dogs over 3 months old and in revaccinating those which received a dose a year ago."

It Is Free

Dr Arrosi underscored an important point: "Vaccination is completely free. No one should give anything in exchange for the vaccination." And in the usual cases suggesting tips?, it was asked. "I repeat, the vaccine is free."

He commented that "if the people cooperate, we will definitely control the problem of rabies in Greater Buenos Aires."

8414

CSO: 5400

BRAZIL

AFRICAN SWINE FEVER OUTBREAKS, CONTROLS DESCRIBED

Swine Fever Under Control in Parana

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 13 Sep 78 p 23

/Text/ African swine fever is practically under control in Parana, Roulien Basaglia, state delegate of the Agriculture Ministry, said yesterday. "Results from the laboratory have been negative lately, indicating only the appearance of hog cholera whose incidence went up greatly in relation to what could be considered normal."

According to Basaglia, there was no guidance to "avoid the subject. The problem is that there have as a matter of fact been no more cases." He observed that, "although the politicians have always pressured the ministry to reduce the rigor of control and prevention measures, there is no relationship whatsoever between the reduced frequency of reports on the disease and the proximity of elections."

As of now, the ministry indemnified 12 property owners for a total of 3 million cruzeiros. Moreover, 26 foci of African swine fever were discovered in Parana, most of them in the northern region, where the hog population is smaller. The chairman of the emergency subcommittee in charge of control measures, Jorge Budra, said that less suspect material has been collected lately.

Delegate Roulien Basaglia gave assurances however to the effect that preventive measures are being taken with more rigor and more efficiency: "Now we are well organized because we are getting more equipment and our animal movement control setup in the state is better."

Border Area Ordered Open

Rio de Janeiro JORNAL DO BRASIL in Portuguese 8 Sep 78 p 15

/Text/ Porto Alegre. The judge of the first jurisdiction of public finance in this capital considered "unlawful" Decree No 22,708, issued by Governor Sinval Guazelli, preventing the entry of animals from other states due to

African swine fever, in examining the security border which rancher Noe Menezes had appealed; the latter did not manage to bring to Rio Grande do Sul the cattle he had purchased in Minas Gerais.

The judicial ruling will thus make it possible for hog farmers in Santa Catarina--the country's biggest producers--to get into Rio Grande do Sul more easily; initially, the government of the state of Rio Grande do Sul had prohibited the entry of animals and afterward, on request of the governor of Santa Catarina, created a "protective health belt" permitting the selected transit of a portion of the hog shipments from Santa Catarina.

Hog Farmer "X"--Deputy

The president of the Brazilian Association of Hog Farmers, Mr. Helio Miguel de Rose, yesterday denied charges made by Deputy Ivo Sprandel (MDB /Brazilian Democratic Movement/), to the effect that the outbreak of African swine fever is the result of manipulations by multinational groups. For Mr. Miguel de Rose, the statements by the candidate for the office of first alternate for the vacancy in the direct senate election are "misinformed, demagogic, and even subversive because they seek to demoralize the combined effort of the hog farmers and the government against swine fever, as confirmed by the country's most important technicians."

"The denunciation by Deputy Ivo Sprandel, to the effect that the Rockfeller /sic/ group is importing hogs to replace the small hog farms, is totally improper. Only one import shipment was handled by Agroceres, of the Rockfeller group, and that was even before swine fever broke out in Brazil" concluded Mr. Helio de Rose.

Efforts To Control Fever

Rio de Janeiro O GLOBO in Portuguese 30 Aug 78 p 12

/Text/ Sao Luis (O GLOBO). About 560 hogs have already been slaughtered in the Maranhao township of Chapadinha, 175 kilometers from Sao Luiz, as a result of the outbreak of African swine fever detected a little more than a week ago. Health authorities anticipate that at least 1,500 animals will have to be killed to prevent the outbreak from spreading to other parts of the state.

Around the township of Chapadinha, technicians from the DEMA (State Delegation of the Ministry of Agriculture) and from the state agricultural secretariat organized a "protective health belt" in an effort to prevent the departure of sick animals. But they are encountering difficulties in convincing the population that hog farmers will be completely indemnified for the compulsory slaughter of hogs. Some hog farmers are trying to get around the official inspection by shipping parts of salted pork to areas not yet hit by the outbreak.

On the other hand, SUCAM (Superintendency for the Campaign Against Malaria) announced yesterday that approximately 1,000 persons have already been vaccinated against yellow fever in the townships of Imperatriz and Carolina, situated in the area served by the Belem--Brasilia highway. A presumed case of forest yellow fever was discovered in Imperatriz but, since it was reported to health authorities only several days after the patient's death, it could not be confirmed officially.

Prevention in Ceara

Fortaleza (O GLOBO). Health authorities from the Ministry of Agriculture and the secretariat of agriculture of Ceara yesterday in Fortaleza admitted that the first outbreak of swine fever in the state, 35 kilometers from Cascavel, in Vila de Brito, is now under control; 50 hogs which had come down with the disease were killed. The entry and departure of hogs, in the township of Cascavel, was prohibited by official order. The secretariats of security and of health are cooperating with the secretariat of agriculture to reduce the effects of the outbreak in Brito.

Governor Waldemar Alcantara by decree yesterday prohibited the participation of hogs at fairs, exhibits, and auctions throughout the state to prevent the spread of the disease.

Ceara Agriculture Secretary Mauro Gondim said yesterday that the prevention of swine fever will be the responsibility of a commission made up of technicians from his secretariat and from the Agriculture Ministry, to be coordinated by the latter.

The mayor of Cascavel said that he would issue an ordinance prohibiting the slaughter and sale of hogs, taking place here on Saturdays, after alerting the population about swine fever.

No Further Outbreaks

Sao Paulo FOLHA DE SAO PAULO in Portuguese 30 Aug 78 p 21

/Text/ African swine fever has already killed more than 5,000 hogs in Sao Paulo. The outbreak however seems to have been stopped since the agriculture secretariat, which keeps tabs on the situation in the State of Sao Paulo, has not received any further reports on any new outbreaks since the last one which came in on 23 August. About 16,000 hogs, which had been attacked by African swine fever, have been killed in Brazil since the outbreak of this disease.

The federal government has already begun paying indemnity to hog farmers whose animals were killed to stop the spread of the disease, with prices ranging from 9.50 cruzeiros to 19.00 cruzeiros per kilogram of live weight.

Orlando Prucoli, coordinator in the fight against African swine fever, under the secretariat of agriculture, said yesterday that "the situation in the state is normal." He also said that the number of hogs killed is not very great compared to the entire hog population which comes to 2 millions in the state. Brazil as a whole has 40 million hogs.

A laboratory in Rio de Janeiro confirmed the existence of African swine fever in Santa Rita do Passa Quatro. About 90 hogs were killed by soldiers from the local military training school at the first two places.

5058
CSO:5400

BRAZIL

BRIEFS

SWINE KILLED--Four military policemen killed 302 swine in Jacutinga this morning. The killing had been authorized by the Agriculture Ministry even though the laboratory results concerning the disease which the swine in the area are experiencing are not yet available. So far, 1578 swine have been killed in the state of Rio Grande do Sul. [Porto Alegre Radio Gaucha in Portuguese 1545 GMT 11 Oct 78 PY]

CSO: 5400

LAOS

BRIEFS

PHON HONG VETERINARY WORK--During the first 6 months of 1978 fraternal medical cadre actively treated and inoculated domestic animals belonging to people in five cantons in this district. They treated and inoculated 764 buffalo, 355 head of cattle, and over 300 pigs and goats. They also treated a number of diseased animals, including 120 buffalo, 33 head of cattle, over 200 pigs and goats, 1 elephant, and over 200 chickens and ducks. [Vientiane VIENTIANE MAI in Lao 4 Aug 78 p 1]

CSO: 5400

MEXICO

ANTISWINE FEVER CAMPAIGN BEGUN

Mexico City EL DIA in Spanish 9 Sep 78 p 8

[Article by Hilda Tapia]

[Text] So that Mexico may maintain its status as a country free of African swine fever the General Directorate of the Animal Health has initiated an obligatory national vaccination campaign.

This campaign's fundamental purpose is to protect the economy of the pig raisers in the country and to prevent the entrance of this disease. Vaccination takes place at organized farms as well as in the most remote rural villages.

Because of the similarity of symptoms of swine cholera and the African swine fever all pig owners are required to submit periodically each and every one of their animals for diagnosis, reported Dr Jose A. Munoz del Pazo, assistant director general of Animal Health of the SARH.

The veterinary personnel of this directorate are responsible for making the tests on the pig farms, for later analysis in one of the 80 animal pathology diagnosis laboratories which exist all over the Republic so as to determine whether swine cholera or any other disease is present.

There are on the market 7 million doses of anti-swine cholera vaccine, Dr Munoz reported, for the purpose of guaranteeing that the health check-ups and the vaccinations might be carried out in accordance with the health guidelines established by the General Directorate of Animal Health: In each of the country's pig raising areas an official doctor of veterinary medicine and vaccinating technicians have been assigned.

This work is being done in collaboration with the state governments in view of the importance of preserving the pig population of the country which is estimated at more than 14 million head.

9204

CSO: 5400

MOZAMBIQUE

SLEEPING SICKNESS CAUSING IMPORTANT LIVESTOCK LOSSES

Maputo NOTICIAS in Portuguese 11 Sep 78 p 3

/Excerpt/ The province of Inhambane, one of the large centers with conditions for the development of agricultural and livestock production in our country, currently possesses a total of about 112,000 head of cattle, which is less than the 119,000 figure that it had in 1974. The drop of 7,000 head that took place in the course of these 4 years is basically due to the sabotage activity carried out by the managerial sector, which predominates in the highlands, as well as to the diseases caused by the tsetse flies, which are rather abundant in that region, and even to the lack of experience of the workers of that sector, who do not have a structure in the highlands to guide them in their activities.

According to statements made by workers of the sector, the district of Panda is currently the one having the largest number, with a total of 20,000-25,000 head, followed in turn by Homoine with 16,000, Funhalouro with 14,000 and Massinga with about 10,000. Each one of these districts faces very special difficulties, ranging from problems of practically nonexistent access routes in some sections to diseases which frequently attack the cattle, and the lack of water in other cases as well.

"We have problems with tsetse flies in the areas beginning from Mapinhane-Mabote upward. This is a problem which affects the major portion of the African Continent, and it is estimated that about two-thirds of the pastures in all of Africa are affected by this disease. The government of our country has made efforts to protect our herds by establishing a barrier against the fly, which is localized at Parallel 22, on the Mapinhane-Mabote Road. There are also deforestation and spraying programs which foresee the eventual use of this belt for agriculture," an official of the Agriculture and Livestock Services of that province declared.

8414

CSO: 5400

OUTBREAK OF FOOT-AND-MOUTH DISEASE REPORTED

Rangoon THE WORKING PEOPLE'S DAILY in English 14 Sep 78 p 3

[Text]

MANILA, 12 Sep—Government authorities have reported an outbreak of hoof-and-mouth disease in the Philippines.

At least six cattle-raising provinces have been quarantined since the disease was first detected five weeks ago on Masbate Island 220 miles southwest of Manila, said chief of the Regulation and Control Division of the Bureau of Animal Industry, Dr Josefino Froyalde.

From Masbate, it spread to Pangasinan Province — largest livestock auction market and 95 miles north of Manila—after the disease went undetected among an August 3 shipment of 200 cows and carabaos (water buffalos).

Authorities were unable to catch up with the boatload of animals that left Masbate.

“Most of these cattle and carabaos were already bought by farmers and were brought to outlying provinces in Luzon,” Froyalde told UPI.

The exact number of animals affected was not available. Pangasinan and Masbate provinces alone have about 159,000 cattle and carabaos quarantined.

NAB/UPI

CSO: 5400

WAR SEEN INCREASING RABIES DANGER

Salisbury THE RHODESIAN FINANCIAL GAZETTE in English 22 Sep 78 p 1

[Text]

THE incidence of rabies in Rhodesia is showing "a very marked increase".

The Director of the Veterinary Services Department of the Ministry of Agriculture told the Financial Gazette this week that the rabies situation had deteriorated because the department was being hindered from achieving its normal vaccination programme.

"In 1975/76 we vaccinated 257 000 dogs; in 1976/77 the number was only 176 000, and this year will show a still further decrease," he said.

Five human cases were reported in the year ended October 1976, and 10 in the following year. The figure for the current year was not yet available, but is expected to be higher.

Warnings are given to all servicemen in the bush not to adopt pets. Any wild animal which acts "out of character" should be regarded with suspicion.

"A mongoose which allows itself to be picked up instead of disappearing like greased lightning may unfortunately be rabid," said the Director.

Other figures released by the department recently show that an estimated 250 000 African-owned cattle have died in Rhodesia's four provinces from tick-borne diseases alone.

Manicaland has lost 200 000 head of cattle, or over 50 per cent of the herds in that area. Mashonaland and Victoria have lost about 40 000 and Matabeleland about 1 000 head respectively.

Dipping has always been unpopular with many African tribesmen, most of whom failed to appreciate its importance. The county's 8 000 dip tanks and spray races have always been a target for terrorists with consequent disruption of the dipping programme.

In Manicaland only 55 dips out of a total of 259 are in use; in Matabeleland South only eight out of the normal 133 dips are being used, while in Victoria the total number in use is only 84 out of 318. In

Mashonaland 43 dips have been closed as a result of terrorist activity out of a total of 388.

Some tick-borne diseases, such as theileriosis, which were formerly unknown in tribal areas are now beginning to appear. Because they have no build-up of immunity the cattle die swiftly.

Equally destructive as the tick-borne diseases is trypanosomiasis which now infects 33 000 km² of Rhodesia.

This year there has been a "fairly extensive" outbreak of foot and mouth disease, mostly in the TTLs in the south-eastern part of the country. Largely because of the heroism of certain members of the Veterinary Services Department the disease has been "fully controlled and contained".

BRIEFS

TSETSE FLY RESEARCH--A report from Zambia published yesterday, to the effect that the University of Zambia had found that the tsetse fly carried an antidote to sleeping sickness was "too vague" for comment by the Tsetse and Trypanosomiasis Control Branch of the Ministry of Agriculture, a spokesman said yesterday. However, the branch looked forward to seeing a detailed report by Dr Curtis Powell, the university's immunologist, who made the claim. The spokesman said a great deal of work had been done on the subject, and Rhodesian immunologists were frequently able to study published reports of work carried out in other parts of the world. "Certainly, we are interested, and we would very much like to see Dr Powell's report. But without any more detail we cannot offer useful comment," the spokesman said. [Text] [Salisbury THE HERALD in English 5 Oct 78 p 3]

CSO: 5400

INTER-AFRICAN AFFAIRS

OCLALAV FINAL COMMUNIQUE OF 17-19 JULY MEETING PUBLISHED

Cotonou EHUZU in French 21 Jul 78 p 7

[Text] The administrative board of the Joint Anti-Locust and Anti-Aviarian Organization (OCLALAV) held its regular 1978 meeting on 17, 18 and 19 July 1978 in Cotonou (People's Republic of Benin) under the chairmanship of Comrade Philippe Akpo, minister of rural development and cooperative action of the People's Republic of Benin.

The following persons took part in the proceedings: the minister of rural development from the Republic of Mali; the minister of tourism, handicrafts and natural resources from the Republic of Chad; the deputy minister of agriculture and natural resources from the Republic of Gambia; as well as representatives of the United Republic of Cameroon; Republic of Ivory Coast; Republic of Upper Volta; Islamic Republic of Mauritania; Republic of Niger; Republic of Senegal.

Also participating in this meeting were: the general director of OICMA (International African Migratory Locust Organization); the representative of CILSS [Inter-State Committee to Fight the Drought in the Sahel]; the representative of the French Republic; the representative of the FAO [Food and Agriculture Organization, Rome]; the representative of COPR [expansion unknown], British Aid; OCLALAV's accounting expert.

In the course of its discussions, the board successively examined: the implementation status of the decisions of the 1977 administrative board and of the 1978 special board; the locust and bird situation in 1977 and 1978; campaign and research plans for 1979; the UNDP [United Nations Development Program]/FAO locust research projects; the UNDP/FAO anti-aviarian aid project; the COPR/OCLALAV research and popularization plan concerning grasshoppers; the status of foreign aid requests; the financial situation; the budget planned for 1979; the OCLALAV/OICMA merger.

The board is worried about the dangerous locust situation currently prevailing in the horn of Africa, a situation which threatens OCLALAV's member countries.

The board is concerned about new outbreaks of attacks by granivorous birds, which find ideal conditions for survival and reproduction in hydroagricultural installations. The board therefore issued an appeal for foreign aid so that bird research would be continued.

The board is also concerned about the chronically difficult financial situation of the Organization, whose reserve funds are practically exhausted. This situation has been studied with the greatest attention and the board has taken a certain number of measures aimed at improving it.

The board adopted the 1979/1980 budget, which amounted to 529.89 million CFA francs.

In connection with restructuring the anti-locust struggle in Africa, it is the board's opinion that the merger of OCLALAV and OICMA has become necessary and has scheduled a meeting of a joint special board of the two organizations in January 1979 at Accra (Republic of Ghana) to decide on the details of the merger.

The board also thanks OICMA's general director, the representatives of the CILSS, France, UNDP, FAO and COPR for their positive contribution to the present meeting.

The board expresses satisfaction with the very cordial atmosphere in which the discussions were held.

The board expresses its sincere thanks to the Beninese people, to its progressive party, the Party of the Popular Revolution of Benin, to the Revolutionary Military Government and to President Mathieu Kerekou, for the particularly warm and fraternal welcome shown to the participants in the administrative board's present session.

11915

CSO: 5400

LOCUST SWARMS IMPERIL AFRICA IN FACE OF NATIONS' DISUNITY

Paris DEMAIN L'AFRIQUE in French 12 Sep 78 pp 72-74

[Article by Raymond Morineau]

[Excerpts] Fate's tragic irony: it is from the Horn of Africa, where war is raging, that the dreadful swarms of locusts will issue forth. Devastated fields, harvests which have been wiped out, and famine again stalk the Sahel and its farmers.

What stealthy calamity, what curse is hanging over the ill-fated Sahel? Four or five consecutive years of drought have killed cattle by the millions and brought famine to some of the world's most impoverished people. Scarcely was hope reborn with the return of normal rainfall than a new flail, a dreadful phenomenon which dates back to the most distant times is now threatening the region: the eighth plague of Egypt, according to the Bible, an invasion of migratory locusts, improperly called grasshoppers, the entomologists say.

It is by a cruel and tragic irony of fate, precisely the abundance of rainfall, a much sought after rainfall, which is the cause of the resurgence of that terrible flail which, these past years, was assumed to have been vanquished thanks to modern means of struggle against the locusts. The second and no less tragic irony of fate is that the wars raging in the Horn of Africa prohibit the application of these modern means exactly in the place where the first reproduction centers of the migratory locusts are presently located...the place whence, this year, the devastating swarms will issue forth.

From Somalia to Senegal and from Niger to the Maghreb, horrid memories haunt men's minds: wretched peasants utterly crushed, weeping over their devastated fields, their crops which had been wiped out and the frightful perspective of famine. The effect of the voracity of the locusts is such that the ravaged fields can only produce normal crops five or six years later. And, the height of misfortune! there is the realization that on an average the invasion of locusts recurs approximately every seven years!

Most assuredly, since 1961, the new technical means placed at the disposition of regional and international organizations for struggle against the locusts have checked invasions which were threatening to be particularly calamitous, in 1968 and again in 1974 and 1975. But it is known that the same invasion can last two or three years, even longer, and that the territory capable of being affected by the swarms of migratory locusts stretches from the Himalayas to the Atlantic and from the Caspian Sea to Tanzania: 30 million square kilometers and 50 countries, in which a fifth of the world's population (800 million inhabitants) lives, according to a report of the Anti-Locust Commission of the FAO (U.N. Food and Agriculture Organization), published last July 1 in Rome.

The avoidance of a catastrophe of such proportions depends essentially on the speed and efficacy of measures which must be taken this summer in the Horn of Africa. However, the alarm had been sounded as early as June 1977 during a scientific meeting held in London. A British climatologist attending the meeting announced the birth of a humid cycle in East Africa and warned that a sudden explosion of the migratory locust population could result. The conditions necessary for their rapid multiplication and swarming are henceforth present and the threat is extremely serious.

Given climatic conditions which are exceptionally favorable (for the locusts), such as those which have prevailed since last autumn in the Horn of Africa, the number of insects grows prodigiously (their population multiplies by 100 during each generation), the phenomenon of swarming occurs and the swarms spread in different directions and at variable speeds at the mercy of the warm winds. At the beginning of August there were about 80 swarms in Somalia, immobilized by the winds. There were another 30 or so in the mountains of Eritrea and in the Ethiopian highlands. In the absence of rapid and effective intervention, summer reproduction in the traditional regions of northern Somalia, the Ogaden and southern Sudan threatens to give a worldwide dimension to the plague. In September and October the locusts could begin to invade the entire Sahel to the west, and arrive in North Africa in January and February, on one hand, and turn towards the Arabian Peninsula and the Indian subcontinent on the other; this winter and the beginning of 1979 they could enter Kenya and Tanzania.

This catastrophe can be avoided. The threatened countries are linked in two regional anti-locust organizations which have, in conjunction with the FAO, created three commissions whose budgets are clearly insufficient in a period of serious danger. At the same time these agencies are efficient and act quickly. In May the FAO made \$900,000 worth of insecticides available to the two Yemens, the Sudan, Somalia and Djibouti. In point of fact however, it is millions of dollars which would be required to pay for the men and material (trucks and airplanes to spray the insecticides). But, in addition to the scanty financial means, the impossibility of acting in guerrilla or open war zones seriously hampers the efforts of the FAO and the anti-locust organizations.

However, today there are available very precise investigative techniques which permit the anticipation, then the localization of the proliferation sites of migratory locusts. With the aid of meteorological satellites, it is possible to anticipate the evolution of rainfall in regions where not long ago no forecasts were possible. Moreover, 'environmental' satellites detect vegetation on the ground and the information they furnish, processed by computer, permits the drawing up of geomorphic maps (by this procedure seven types of vegetation are already distinguishable) which show the zones where locusts are apt to reproduce and swarm. This information technique in the struggle against locusts is not yet in full application. The organizations of the African countries make available, however, data and means which would permit them to choke off the plague. But the war raging in vast regions of Ethiopia is largely paralyzing these efforts. Furthermore, the small planes used in spraying the insecticides, as well as trucks, are difficult to use in the mountains and in the highlands.

As early as June, the committee of the FAO reported: "Swarms coming from the summer zones of Ethiopia and Somalia may group, starting in August, inside a narrow band along the intertropical front stretching from Borama to Hargeisa and Burao in northern Somalia; they could thus constitute an extremely vulnerable target. Every measure should be taken to execute immediate action during August-September in this zone, in order to attack the swarms before they disperse in the countries to the south." But it appears that this action has yet to be taken.

The struggle against migratory locusts requires a firm solidarity on the part of the threatened countries (as well as global solidarity, moreover) and especially the recourse to very competent experts, because the use of the only effective insecticides is very tricky. This involves essentially dieldrin for the larvae and malathion for the adults. They are mist-sprayed by truck and plane. If they are used in too strong a dose, they are forbiddingly toxic for mammals. Dieldrin is used in a dosage of several tenths of a gram per hectare, scattered in little drops on the vegetation in front of the bands of larvae, which die after having eaten the treated grass. Malathion is spread on adult insects which it kills at a dosage of one liter per hectare.

The anti-locust struggle requires close cooperation among the different nations affected. Presently, the greatest concern of the experts is to intercept and spray the locusts in flight with insecticides along the Ethiopian-Somalian frontier when they disperse at the end of August and in September. In present circumstances, such cooperation between the two countries is difficult to conceive. "In the past we have been able to cooperate very well," Mohammed Abdi Chelle, director of the Somalian Office of the East African Anti-Locust Organization stated in July. "But, because of the present differences between Somalia and Ethiopia, this appears simply impossible."

At the OAU summit in Addis-Ababa last July, Lt Col Senyi Kountche, president of the Republic of Niger, invited the other chiefs of state to stop quarrelling among themselves and to fight for a united front against the terrible threat of migratory locusts. This was an appeal to wisdom of desperate urgency. Alas! once again, foiled African solidarity and the word being given to weapons rather than to the technicians of peace and prosperity run the strong risk of bringing down upon the continent a new and sinister procession of misfortunes of which not the least will be famine for millions of human beings.

9330

CSO: 5400

FARMERS USE TORCHES TO PROTECT CROPS

Rangoon THE WORKING PEOPLE'S DAILY in English 20 Sep 78 p 1

[Text]

RANGOON, 19 Sep—Farmers at 63 village-tracts in Danubyu Township have started using more than 20,000 fire traps since 16 September, to protect more than 102,300 acres of paddy fields from ear nibbling caterpillars and other pests.

Due to favourable weather conditions, paddy cultivated on more than 102,300 acres of paddyland is thriving and there is danger of ear nibbling caterpillars and other pests destroying the crops.

The Agriculture Corporation has urged the farmers to use fire traps which is one of the effective methods to protect the plants from pests and hence fire traps have been set at all the village-tracts in Danubyu Township where paddy is being cultivated.

The farmers were urged to use oil as fuel for torches made of bamboo and to put 100 torches in each *kwin* to make the fire traps effective.

They have been advised to use these fire traps once a week till the end of the first week of November to protect the crops from pests.

Wakema

WAKEMA, 18 Sep—Similarly, more than 500 farmers in Kyone-

daing Village-tract here, simultaneously lighted more than 3,000 fire traps in the paddy fields at about 6 pm on 17 September.

The fire traps were set by farmers to protect 3,109 acres of paddy fields in the village-tract from pests.

Henzada

HENZADA, 17 Sep—Farmers in this township simultaneously lighted 27,368 fire traps (one each for every five acres) yesterday to protect paddy crops from ear nibbling caterpillars.

Township Party Unit Chairman U Kyaw Shein and committee members, Township People's Council Chairman Major Ohn Maung and executive committee members toured the paddy fields and inspected the torches.

The farmers are to use these fire traps once a week till the end of the first week of November to protect crops from pests.

NAB

CSO: 5400

CHAD

LARGE SWARMS OF LOCUSTS, GRASSHOPPERS SIGHTED

Ndjamena INFO TCHAD in French 26-27 Aug 78 pp 4, 5

[Text] The region of Massaguet-Massakory, where a large 'swarm' of grasshoppers ran rampant a little over a week ago, will be threatened again in the coming days by a second generation of larvae. The person in charge of the office of Plant Protection (P.V.) in the department of agriculture is sounding the alarm bell all the more since a large quantity of migratory locusts have been spotted in the vicinity of Massakory, Tourba and Karal.

The grasshoppers are 'non-colonizing acrididae.' Unlike the migratory locusts, the grasshoppers are of local origin. The situation after the first generation seems to be presently under control; the agents of the OCLALAV [Joint Anti-Locust and Anti-Aviarian Organization] were slow in taking action. But the threat of a more serious plague remains. Since wild vegetation is abundant, the larvae are developing and about mid-September, once this wild vegetation dies, they will fall back upon the millet fields, bringing in their wake a serious food shortage in the area. For the time being, the office of Plant Protection is multiplying its efforts. However, limited measures cannot be very effective. Moreover, under normal circumstances the dustings are to be paid for by farmers, who buy AGH at 150 Fr. per kilo. The P.V. also sells dusting bags for this purpose.

The migratory locusts, on the other hand, are of east African origin. A report of the FAO on the locust situation at the end of June 1978, refers to about 50 swarms (a swarm may cover 100 square km) in Ethiopia and Somalia. An escape of these swarms westward--the traditional route of locust migrations in central and west Africa--would first threaten the Sudan. But the official of the P.V. removed any anxiety on this point: measures have been taken in the Sudan since June to bar an eventual escape route.

On the other hand in Chad, a swarm of locusts, that is to say 3,000 insects per hectare, has been spotted at Karal-Tourba. These were the Locusta, the migratory African locust. A working team from OICMA (the International African Migratory Locust Organization) is already on the spot to determine the exact number of insects.

The annual report of the FAO deplores the lack of precise information for the formulation of its plans. The internal situation in Chad makes forecasts impossible. Notwithstanding, the entire Sahel region remains a potential locust center. All that it would take would be early rainfall.

9330

CSO: 5400

CAMPAIGN AGAINST RHINOCEROS BEETLE

Nairobi DAILY NATION in English 26 Sep 78 p 5

[Text]

A TINY pest has become a big problem at the Coast.

* The Rhinoceros Beetle (that's it pictured on the right) is, in its own small way, trying to cause as much damage as the monster it's named after is sometimes blamed for.

But the pests destructive days among coconut crops may soon be numbered.

For Kwale district crops officer Mr. J.S. Nyamai has

called for a new campaign to rid the area of the pest.

Last year the district was granted 40,000/- by the district development committee to fight the Rhinoceros Beetle, he said.

But this was not enough and work had to be stopped by December, leaving a lot of cut logs unburnt.

And the left logs would act as a breeding habitat for the pest unless more funds were

allocated to continue the campaign, he said in his annual report.

Mr. Nyamai said coconut was not a demanding crop but, most farmers did not apply fertilisers or control weeds — and this was why, the Beetle breeds rapidly.

Most districts, he said, established their own nurseries to alleviate the perpetual shortage of seedlings.

— K N A.

*[Photo not available]

CSO: 5400

BRIEFS

NONG BOK PEST ERADICATION--After the appearance of caterpillars destroying newly-planted rice seedlings, the Agriculture Office in Meuang [district] Nong Bok, Khammouan quickly sent specialized cadre supplied with a quantity of pesticides out to work with farmers to eradicate these insect pests in seven communes in the district, Taseng [canton] Nong Bok, Taseng Nong Pham, Taseng Dong Kasin, Taseng Song Meuang, Taseng Som Sa-at, Taseng Don Savang, and Taseng Pakse. They have now eradicated crop-destroying pests on over 120 hectares of land and were able to save the seedlings from the ravages of caterpillars, locusts, and crabs. [Vientiane KHAOSAN PATHET LAO in Lao 7 Aug 78 p A 2]

MEUANG CHANTHABOULI PEST ERADICATION--In mid-July the Agriculture Office in Meuang Chanthabouli, Vientiane sent a number of specialized cadre equipped with sprayers and pesticides to work with the people to eradicate pests, including caterpillars and plant lice, destroying rice seedlings on 45 hectares of ricefields in Taseng [canton] Phon Tong. With their quick action, 22 hectares of land ravaged by pests have been saved. These cadre are currently industriously continuing their work in order to save the people's crops from the destruction of insect pests. [Vientiane KHAOSAN PATHET LAO in Lao 9 Aug 78 p A 4]

PESTICIDES DISTRIBUTED IN VIENTIANE--After receiving reports of insect pests destroying rice and other crops in Meuang [district] Vang Viang, Meuang Phon Hong, and Meuang Thoulakhom, Vientiane, officials of the Vientiane Provincial Agriculture Office quickly sent specialized cadre supplied with a quantity of pesticides to work with farmers in production areas in these three districts to suppress these pests. Within a short time they were able to save several hectares of rice seedlings affected by caterpillars, plant lice, and crabs. [Vientiane KHAOSAN PATHET LAO in Lao 17 Aug 78 p A 3]

CSO: 5400

MAURITANIA

ANTILOCUST MEASURES DISCUSSED

Antigrasshopper, Antilocust Measures

Nouakchott CHAAB in French 8 Sep 78 p 2

[Article by Mohamed O. Jelledi]

[Text] No sooner relieved from the specter of the draught which decimated most of the livestock and completely destroyed all forms of crop, that a new scourge, much more dangerous, is taking shape: locusts! This is the way of nature: as soon as a problem disappears another takes its place. Needless to say, the hope we may have had from the rainfall of these past few days may unfortunately vanish. The pastures and crops are once again threatened by a deadly enemy of vegetation, the locust.

Migratory locusts have been reported in the Canary Islands and in Sudan. It is very unlikely that they will not invade the countries of West Africa over the next few weeks.

It is a fact that the whole southeastern portion of the country, especially the first, second, third, fourth and tenth regions, are being invaded by the extremely voracious insects commonly called grasshoppers. The Ministry of Rural Development informed us that damages to pastures were already important. Fifteenth to 20 percent of the crops--a notably high percentage--have been destroyed. Density is very large, 12,000 insects per hectare.

Grasshoppers, like the migratory locusts, have an uncommon rate of reproduction, a fact which should not be forgotten. It is therefore quite certain that in a very short time they will invade the whole country if an adequate battle is not waged against them right away and if, meanwhile, it does not snow in that area, which could undoubtedly happen now that winter--when temperatures hover between 45 and 50° C--is on its way.

Curiously, the cold is a natural means of fighting locusts which only wait for the cold season to disappear (...)

With these words, there is no need to insist on the danger to crops and pastures brought by this deadly scourge: locusts can easily strip thousands of hectares in a single morning. To make matters worse, an area devastated by locusts can take as long as 4 to 5 years to regain its normal potential. If the chronic small rainfall in Mauritania is added to the picture, we simply end up with a vast tennis court.

To make a long story short, it is not, after all, the first locust invasion that we, Mauritians, have experienced: we know how to fight.

Whether sedentary (grasshoppers) or migratory, locusts were killed in swarms by women, children and old people armed with branches, going after the enemy.

This is a very simple and rather effective method which gave good results through the years and which remains absolutely valid as a means of stopping the scourge.

As for the Ministry of Rural Development, it has been on the ready for several weeks. Thus, it gave each of the infested regions the vehicles, products and personnel needed to fight this scourge. Regional officials have spared no efforts to succeed in saving as much pastures and crops as possible.

At this point, it should be noted that the Joint Antilocust and Anti-Avian Organization (OCLAVAL), together with the farm service, is undertaking treatment operations in the second region.

It is, however, obvious that all these operations are rather ridiculous if they are not accompanied by a true patriotic plan and the full mobilization of the popular masses.

A task of such scope cannot do without the true and efficient contribution of each and everyone of us.

In future issues we will talk in more details about the grasshoppers' and locusts' threat.

Minister Discusses Antigraashopper Measures

Nouakchott CHAAB in French 13 Sep 78 p 3

[Interview with Oumar Ba, minister of Rural Development, by M. Hennoune]

[Excerpts] [Question] The recent appearance of grasshoppers in Mauritania is on everybody's lips. Mr. Minister can you give us more details on this unexpected invasion?

[Answer] Grasshoppers exist throughout the year. The danger comes, as it happened in our country, when thousands of eggs hatch at the same time at the end of a draught.

The grasshoppers swarmed over the seeds; potential crops were destroyed.

The affected regions rightfully advised us of the problem and requested our intervention.

[Question] And you intervened?

[Answer] Naturally. It was a sizeable danger. A 1-gram grasshopper eats his weight (1 g) in food. There are thousands and thousands of them. Consequently, thousands of tons will be destroyed. Not only are tremendous means necessary to fight the problem, but they must also be available. As you know, we mobilized all the vehicles in the department and bought fuel to send pesticides to disaster areas. Furthermore, the governors received precise instructions to participate in the campaign. In other words, a general mobilization took place in order to stop the invasion of grasshoppers.

[Question] Mr Minister did you estimate the damages brought on by this invasion?

[Answer] We have not, as yet, made a precise evaluation. I cannot give you a figure. A mission made up of our technicians accompanied by American technicians should be leaving in the very near future to visit the areas. It is only upon their return that we will know for sure the extent of the crop destruction.

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NICARAGUA

BRIEFS

INCREASED COFFEE RUST CONTROL--Managua, 4 Oct (ACAN-EFE)--Nicaraguan Agriculture Minister Klaus Senglemann said today, Wednesday, that the incidence of coffee rust decreased by 48 percent in September from last year's level. The minister said that, considering the area under inspection, the number of 142 infected plants is negligible. [Panama City ACAN in Spanish 2145 GMT 4 Oct 78 PA]

CSO: 5400

GRASSHOPPERS DESTROY CROPS IN KANO STATE

Kaduna NEW NIGERIAN in English 27 Sep 78 p 24

[Article by Ibrahim A. Biu]

[Text]

GRASSHOPPERS and two other species of insects have destroyed large acres of farmlands in the Gumel Local Government area of Kano State.

The towns badly affected by the recent grasshopper invasion include Jajeri, Madana, Katika, Bansawa, Gwari, Baikarya, Garin-Gambo, Gari-Baki and Garin-Ali, all in Gumel District.

The grasshoppers have destroyed groundnuts, rice, maize and guineacorn.

A statement issued by the Gumel Local Government Council confirmed that as a result of the invasion many farmers have to replant crops destroyed.

The statement explained that following the invasion, at least, about seven kilometres of farmlands near Gumel were also destroyed.

"Though adequate preventive measures were taken by the state's Ministry of Agriculture, the growth of crops in the affected district is irregular all over the area," the statement said.

According to the statement, several farmers in the area have replanted their crops about four or five times during the new planting season.

It further said that as a result of the invasion poor harvest of crops was envisaged in the area.